

Australian Bureau of Statistics

1345.4 - SA Stats, Aug 2009

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Summary

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Feature Articles

Heating and Cooling



<u>Demography</u>

Includes: Estimated resident population, Components of population change

South Australia's population increased by 18,500 during the year ended 30 December 2008.



Labour Force

Includes: Contents, Employed persons, Unemployment, Participation rate

Trend unemployment rate for South Australia lower than the national rate.



Incomes

Includes: Average weekly earnings

In the year ended May 2009 average weekly full time earnings in South Australia grew by 6.9% compared to 5.9% nationally.



State Accounts

Includes: State accounts, Household final consumption expenditure (HFCE)

South Australia the only state with increased State Final Demand in the March quarter 2009.



Consumption

Includes: Retail trade, New motor vehicle sales

South Australian spending on clothes and soft goods increased 24% in the June quarter 2009.



Investment

Includes: **Private new capital expenditure, Mineral and petroleum exploration expenditure**South Australia's Private New Capital Expenditure decreased by 2.3% to \$1,201m in the March 2009 quarter.



Construction

Includes: Building approvals, Construction work done

For the year ended June 2009, dwelling unit approvals in the South East Statistical Division rose 37.5%.



Price Indexes

Includes: **Contents, Consumer price index, Wage price index, House price index** Adelaide's house price index rises for the first time since March 2008.



Housing Finance

Includes: Housing finance commitments

Average home loan size in South Australia significantly lower than the national average.



International Merchandise Trade

Includes: Exports and Imports

The value of South Australia's merchandise exports falls to \$634m in June 2009



<u>Water</u>

Includes: Rainfall, Reservoir levels

Wettest July since 1996 sees water storage in Adelaide's reservoirs rise to 73% of capacity.

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FORTHCOMING ISSUES

September 2009 October 2009 November 2009 December 2009 January 2010 February 2010

30 September 2009 27 October 2009 24 November 2009 22 December 2009

Release Date

27 January 201023 February 2010

WHAT'S NEW THIS MONTH

Topics which have been updated with new data in this month's issue of **SA Stats** include: <u>Construction</u>; <u>Consumption</u>; <u>Housing Finance</u>; <u>Income</u>; <u>International Merchandise Trade</u>; <u>Labour Force</u>; <u>Price Indexes</u> and <u>Water</u>.

This month's **SA Stats** article looks at how South Australians heat and cool their homes. Using data from **Environmental Issues: Energy Use and Conservation, March 2008**, the article examines the numbers and types of heaters and coolers used in South Australian households. It also presents information on the reasons people choose different types of heating. As heating and cooling account for a large amount of a household's energy consumption, the types of appliances people choose has a great impact on their energy use and greenhouse gas emissions.

INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or James Inglis on Adelaide (08) 8237 7405, or email sa.statistics@abs.gov.au.

Feature Articles



FEATURE ARTICLES

Aug 2009 Heating and Cooling

Jul 2009 What are South Australians Studying?

Jun 2009 Water Efficiency in South Australia's Vineyards

May 2009	Journey to Work in the City of Adelaide
Apr 2009 Feb 2009	Housing Finance - First Home Buyers and Other Borrowers Recent Increases in South Australia's Fertility
Jan 2009	South Australian Household Final Consumption Expenditure
2008	Coult / tableatail / Touconia / Intal Contour public Exponentare
Dec 2008	Energy Consumption in South Australia
Nov 2008	Adelaide's Population Turnover
Oct 2008	Contributors to Adelaide's Price Rises
Sep 2008	Adelaide's Suburbs of Advantage and Disadvantage
Aug 2008	South Australia's Agriculture Industry
July 2008	New Dwelling Approvals in South Australia
May 2008	<u>Literacy of South Australians</u>
April 2008	South Australia's Migrant Population
	South Australia's Ageing Population and the Labour Force
Feb 2008	South Australia's Mining Industry
	Water Supply in South Australia
Jan 2008	Labour Force Underutilisation and the Underemployed in South Australia
0007	Water Use in Agriculture - A South Australian Perspective
2007	Charte Attendance in Couth Australia
Nov 2007	<u>Sports Attendance in South Australia</u> <u>Recorded Crime - Victims, South Australia, 2006</u>
Oct 2007	Attendance at Cultural Venues and Events by South Australians
Aug 2007	Children's Participation in Cultural and Leisure Activities - South Australia, 2006
Jul 2007	South Australia's big picture: Census highlights the changes in South
33 233.	Australian society
	Participation in Sports and Physical Recreation Activities - South Australia
May 2007	<u>Health of South Australians - Body Mass</u>
	Household Use of the Internet in South Australia
Apr 2007	Employment in the Retail Trade Industry in South Australia
	River Murray - South Australia
Mar 2007	Household Waste Management in South Australia
Feb 2007	Births - South Australia
Jan 2007	Gross Domestic Product and Gross State Product
2006	Dainfall in Couth Australia Couth Australian Decarvoire Water Consumption
Dec 2006 Nov 2006	Rainfall in South Australia, South Australian Reservoirs, Water Consumption Health of South Australians - Health related actions
Oct 2006	National Regional Profile - New Release, New Features
Sep 2006	Fuel Production and Consumption, Greenhouse Gas Emissions, Land Use
3cp 2000	Change and Forrestry
Aug 2006	Health of South Australians - Health Risk Behaviours
g	The South Australian Grape Industry
Jul 2006	Use of IT By Australian Businesses
	Household use of the Internet in South Australia
May 2006	<u>Health of South Australians - Health Status</u>
Apr 2006	International Trade in Services
	International Students in South Australia
Feb 2006	Labour Force and Other Characteristics of Migrants in South Australia
Jan 2006	Survey of work in selected Culture & Leisure Activities
2005	The collection of the Collecti
Nov 2005	Household Income in South Australia
Oct 2005	Household Expenditure in South Australia SA Rusiness and Innovation
Oct 2005	SA Business and Innovation

Transition from School

Demography



ESTIMATED RESIDENT POPULATION

The estimated resident population (ERP) for South Australia was 1,612,000 at 31 December 2008, an increase of about 18,500 persons (1.2%) since 31 December 2007. Nationally, the ERP was 21,644,000 at 31 December 2008, an increase of about 406,100 persons (1.9%) since 31 December 2007.

ESTIMATED RESIDENT POPULATION, Preliminary data

	Population at end December quarter 2008	Change over previous year '000	Change over previous year %
New South Wales	7 041.4	97.5	1.4
Victoria	5 364.8	102.4	1.9
Queensland	4 349.5	106.7	2.5
South Australia	1 612.0	18.5	1.2
Western Australia	2 204.0	66.0	3.1
Tasmania	500.3	4.9	1.0
Northern Territory	221.7	4.2	2.0
Australian Capital Territory	347.8	5.8	1.7
Australia(a)	21 644.0	406.1	1.9

⁽a) Includes Other Territories comprising Jervis Bay Territory, Christmas Island and the Cocos (Keeling) Islands. Source: Australian Demographic Statistics (cat. no. 3101.0).

In 2007-08, the South Australian Statistical Division (SD) with the largest percentage increase in ERP was Outer Adelaide (2.0%) followed by Adelaide (1.1%).

ESTIMATED RESIDENT POPULATION(a), By Statistical Division, South Australia

	2	007	2008		
	Population at 30	30 Change over previous	Population at 30	Change over previous	
	June	year	June	year	
	'000	%	'000	%	
Adelaide	1 159.1	1.2	1 172.1	1.1	
Outer Adelaide	131.4	2.1	134.1	2.0	
Yorke and Lower North	45.9	1.0	46.4	1.0	
Murray Lands	69.8	0.5	70.1	0.4	
South East	64.9	0.6	65.4	8.0	
Eyre	35.0	0.5	35.2	0.5	
Northern	79.6	0.7	80.1	0.6	

South Australia 1 585.8 1.1 1 603.4 1.1

(a) Estimates for 2007 are revised to align with new 2007 state and territory totals and estimates for 2008 are preliminary.

Source: Regional Population Growth, Australia 2007-08 (cat. no. 3218.0).

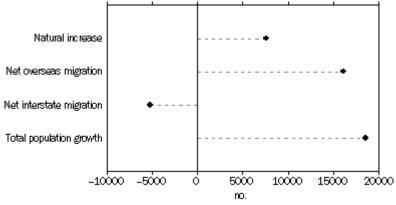
Map of South Australia's Statistical Divisions (PDF 2.44MB)

COMPONENTS OF POPULATION CHANGE

For the year ended 31 December 2008, South Australia recorded a natural increase (i.e. the net of births and deaths) of 7,613 persons. Net overseas migration provided a gain of 16,090 persons in the same period while net interstate migration realised a loss of 5,195 persons.

For the year ended 31 December 2008, Australia recorded a natural increase in population of 152,668 persons; net overseas migration resulted in a gain of 253,415 people.

POPULATION GROWTH, South Australia - Year ended December 2008



Source: Australian Demographic Statistics (cat. no. 3101.0)

Labour Force



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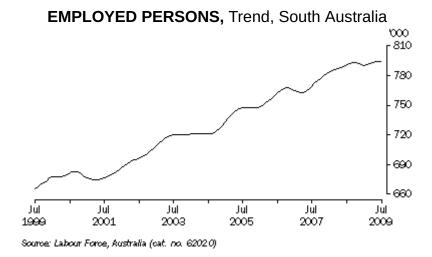
Employed persons

Unemployment

Participation rate

EMPLOYED PERSONS

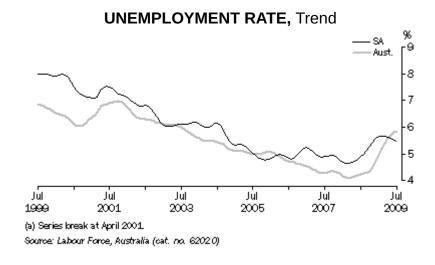
In trend terms, the total number of persons employed in South Australia has remained relatively stable over the last two months with 794,100 employed in July 2009. The total number of persons employed in Australia in July 2009 was 10,778,300, a decrease of 800 on the number employed in June 2009 (10,779,100).



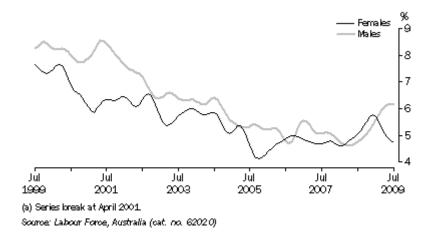
The number of males employed full-time in South Australia in July 2009 was 344,600 (in trend terms), a decrease from 347,500 in June 2009. The number of females employed full-time in South Australia increased from 186,700 in June 2009 to 186,900 in July 2009.

UNEMPLOYMENT

The trend estimate unemployment rate for South Australia was 5.5% in July 2009. Australia's unemployment rate increased slightly from 5.8% in June 2009 to 5.9% in July 2009. For the third consecutive month South Australia's trend unemployment rate is below the national rate.

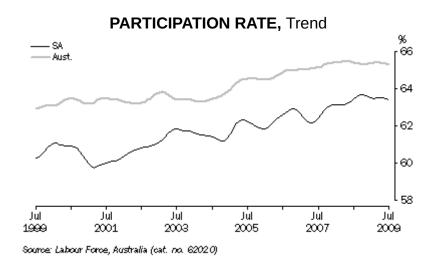


For South Australia, the trend unemployment rate for males remained steady at 6.2% in July 2009. The trend unemployment rate for females in South Australia decreased slightly from 4.8% in June 2009 to 4.7% in July 2009, the seventh consecutive monthly decline.



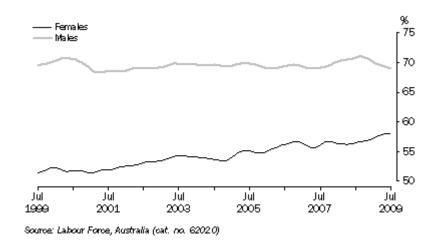
PARTICIPATION RATE

The trend estimate of the participation rate for South Australia fell slightly to 63.4% in July 2009. Australia's trend participation rate also fell slightly, to 65.3%.



For South Australia, the trend participation rate for males dropped slightly from 69.2% in June 2009 to 69.1% in July 2009 continuing the decline that began in October 2008. The Australian participation rate for males remained steady at 72.2%. The participation rate for South Australian females also remained steady between June and July 2009 (58.0%). The Australian female participation rate decreased slightly to 58.7% in July 2009 after holding steady at 58.8% for the previous five months.

PARTICIPATION RATE, Trend, South Australia



Incomes



AVERAGE WEEKLY EARNINGS

The trend estimate of average weekly (ordinary time) earnings for full-time adult persons in South Australia increased by 6.9% to \$1,127.10 in the 12 months to May 2009. Nationally, the corresponding increase was lower at 5.9% (up to \$1,197.50).

In the 12 months to May 2009, average weekly full-time earnings in South Australia for males increased by 6.8% to \$1,190.40. Nationally, male average weekly full-time earnings increased 6.5% to \$1,282.00. Female average weekly full-time earnings in South Australia increased by 6.6% to \$1,007.60 in the 12 months to May 2009, compared with a national increase of 5.2% to \$1,058.40.

FULL-TIME ORDINARY TIME EARNINGS, Trend, South Australia 1200 Females 1100 1000 900 800 700 600 May May May May May Man 2005 2007 2001 2003 2009 Source: Average Weekly Earnings, Australia (cat. no. 6302.0)

For information on the wage price index, please refer to the 'Price Indexes' topic.

State Accounts

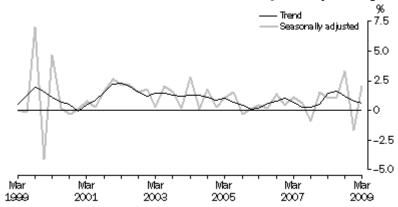


STATE ACCOUNTS

South Australia's March quarter 2009 State Final Demand in chain volume (trend) terms was \$19,144m, a 0.6% increase from the December quarter 2008. Australia's Domestic Final Demand decreased 0.3% in the March quarter 2009, to \$283,026m.

No other state or territory in Australia reported growth in State Final Demand in chain volume (trend) terms during the March quarter 2009. Of the other states and territories, the largest decreases for the quarter were reported in the Northern Territory (down 2.2%) and Queensland (down 1.4%).

STATE FINAL DEMAND, Chain volume measures, Quarterly change, South Australia

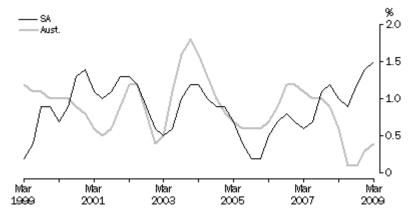


Source: Australian National Accounts: National Income, Expenditure and Product (cat. no. 5206.0)

HOUSEHOLD FINAL CONSUMPTION EXPENDITURE (HFCE)

In chain volume (trend) terms, South Australia's March quarter 2009 HFCE was \$11,378m (7.4% of the national total of \$153,634m). The value of HFCE for South Australia increased by 1.5% from the December quarter 2008 to the March quarter 2009. For Australia, HFCE increased by 0.4% from the December quarter 2008 to the March quarter 2009.

HFCE, Chain volume measures, Trend, Quarterly change

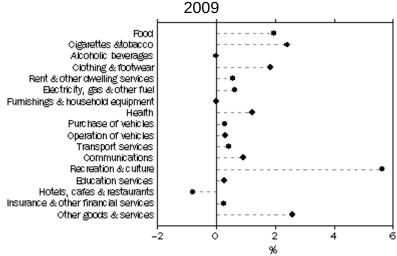


Source: Australian National Accounts: National Income, Expenditure and Product (cat. no. 5206.0)

The largest increases in expenditure in South Australia for the March quarter 2009 were for Recreation and culture (up 5.6% from the December quarter 2008), Other goods and services (up 2.6% from the December quarter 2008), Cigarettes and tobacco (up 2.4%) and Food (up 2.0%). Expenditure on Hotels, cafes and restaurants decreased by 0.8% over this period.

For Australia, the largest increase was for Electricity, gas and other fuel (up 1.0% from the December quarter 2008), followed by Recreation and culture (up 0.8% from the December quarter 2008), Food (up 0.7%), Clothing and footwear (up 0.7%), Health (0.7%), and Communication (up 0.7%). Expenditure on Purchase of vehicles decreased 2.4% from the December quarter 2008.

HFCE, Chain volume measures, Trend, Quarterly change, South Australia - March Quarter



Source: Australian National Accounts: National Income, Expenditure and Product (cat. no. 5206.0)

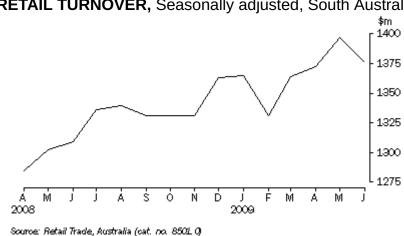
Consumption



RETAIL TRADE

The June 2009 seasonally adjusted estimate for South Australia's retail turnover was \$1,376.0m, while the estimate for Australia was \$19,417.3m. South Australia's contribution to total retail turnover in Australia remained steady at 7.1%.

From May 2009, the decrease in retail turnover for South Australia across all retail industries was 1.5%, while turnover for Australia declined by 1.4%.

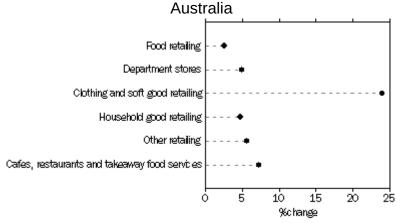


RETAIL TURNOVER, Seasonally adjusted, South Australia

Comparing June 2009 with June 2008, the South Australian industry groups with the largest percentage increases in retail turnover (in seasonally adjusted terms) were Clothing and soft good retailing, which rose by 24.0% to \$73.8m, and Cafes, restaurants and takeaway food services, which rose by 7.3% to \$158.4m.

No South Australian industry groups showed decreases in seasonally adjusted retail turnover when comparing June 2009 with June 2008.

RETAIL TURNOVER, Seasonally adjusted, Change from June 2008 to June 2009, South

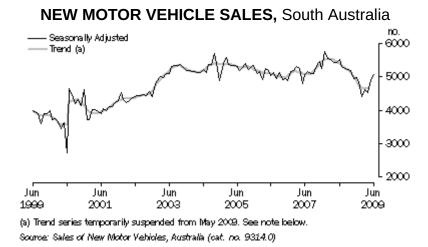


Source: Retail Trade, Australia (cat. no. 8501.0)

NEW MOTOR VEHICLE SALES

In June 2009, 2,853 new passenger vehicles and 5,101 new vehicles in total (in seasonally adjusted terms) were sold in South Australia.

In Australia, 44,411 new passenger vehicles and 80,330 new vehicles in total (in seasonally adjusted terms) were sold in June 2009.



Note: Suspension of Trend Estimates

Following the Federal Government Budget in May 2009, the eligibility period for the Small Business and General Business Tax Break was extended to December 2009. The rebate level was also increased for small businesses, allowing eligible businesses to claim an increased tax deduction on the purchase of new motor vehicles.

The trend series attempts to measure the underlying behaviour in new motor vehicle sales. In the short term, this measurement may be significantly affected by unusual influences in the original and seasonally adjusted data, like those observed in May and June 2009. If the trend estimates in the publication were to be calculated without fully accounting for this irregular event, they would be likely to provide a misleading view of the underlying trend in new motor vehicle sales activity.

The new motor vehicle sales trend series has therefore been suspended from May 2009. The trend series will be reintroduced when more certainty emerges in the underlying behaviour of new car sales.

Investment



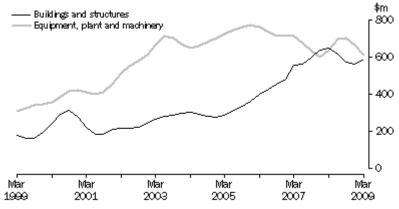
PRIVATE NEW CAPITAL EXPENDITURE

Between the December 2008 and March 2009 quarters, the South Australian chain volume (trend) estimate of private new capital expenditure decreased by 2.3% to \$1,201m. Expenditure on Equipment, plant and machinery decreased by \$54m (or 8.1%) to \$612m, while expenditure on Buildings and structures increased by \$26m (or 4.6%) to \$589m.

Between the December 2008 and March 2009 quarters, private new capital expenditure for

Australia decreased by 0.7% to \$23,932m. Expenditure on Equipment, plant and machinery decreased by 5.3%, while Buildings and structures expenditure increased by 4.4% over this period.

PRIVATE NEW CAPITAL EXPENDITURE, Chain volume measures, Trend, South Australia



Source: Private New Capital Expenditure and Expected Expenditure, Australia (cat. no. 5625.0).

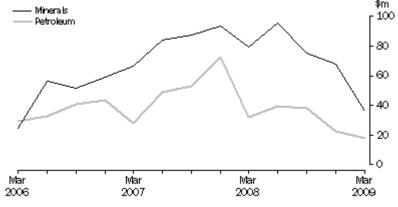
MINERAL AND PETROLEUM EXPLORATION EXPENDITURE

The value of mineral exploration expenditure in South Australia during the March quarter 2009 was \$36.0m (in original terms), down 47.1% from \$68.0m for the December quarter 2008. Over the same period, Australian expenditure on mineral exploration decreased by 37.8% from \$648.5m in the December quarter 2008 to \$403.5m in the March quarter 2009.

The main minerals sought in South Australia in the March quarter 2009 were uranium (\$10.7m exploration expenditure), copper (\$7.6m), and gold (\$6.0m).

Expenditure on petroleum exploration in South Australia in the March quarter 2009 was \$17.9m, down 19.6% from the December quarter 2008. Nationally, expenditure on petroleum exploration decreased 1.5% from \$1,013.4m in the December quarter 2008 to \$998.6m in the March quarter 2009.

MINERAL AND PETROLEUM EXPLORATION EXPENDITURE, Original, South Australia



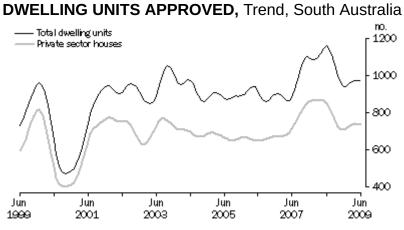
Source: Mineral and Petroleum Exploration, Australia (cat. no. 8412.0)



BUILDING APPROVALS

In June 2009, the total number of dwelling units approved in South Australia (in trend terms) declined 0.2% to 975. Nationally, the total number of dwelling units approved (in trend terms) rose 1.3% to 10,956, the fifth consecutive rise following the decline recorded throughout 2008.

The trend estimate for the number of private sector houses approved in South Australia in June 2009 fell 0.3% to 737.



Source: Building Approvals, Australia (cat. no. 8731.0)

In the year ended June 2009, the South East Statistical Division was the only Statistical Division in the state to record an increase in dwelling units approved (up 37.5%). The Eyre Statistical Division recorded the greatest percentage decrease in dwelling units approved over the same period (down 29.0%), following a 60.3% increase during the year ended June 2008.

DWELLING UNITS APPROVED, by Statistical Division, Original, South Australia

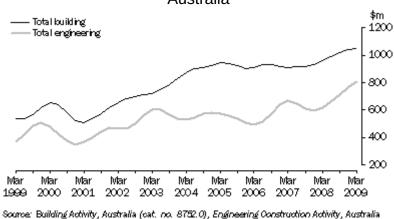
	Year ended June 2008 Dwelling units Change over previous year Dw		Year ended June 2009	
	no.	%	no.	%
Adelaide	9 378	30.8	8 294	-11.6
Outer Adelaide	1 659	6.0	1 567	-5.5
Yorke and Lower North	626	34.6	511	-18.4
Murray Lands	503	-24.2	437	-13.1
South East	389	9.3	535	37.5
Eyre	335	60.3	238	-29.0
Northern	490	26.3	431	-12.0
South Australia	13 380	23.7	12 013	-10.2

Source: Building Approvals, Australia - data available on request

CONSTRUCTION WORK DONE

In the March quarter 2009, the total value of building work done (in trend terms) in South Australia rose slightly to \$1,045.7m, an increase of 0.8% from the December quarter 2008. The total value of engineering work done in the March quarter 2009 was \$806.3m, an increase of 5.7% from the December quarter 2008 (\$762.9m).

VALUE OF CONSTRUCTION WORK DONE, Chain volume measures, Trend, South Australia



Price Indexes



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Consumer price index

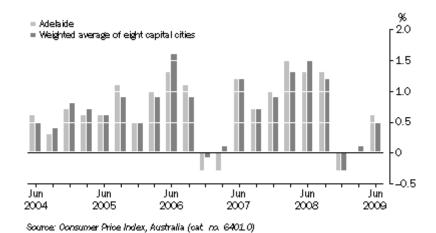
Wage price index

House price index

CONSUMER PRICE INDEX

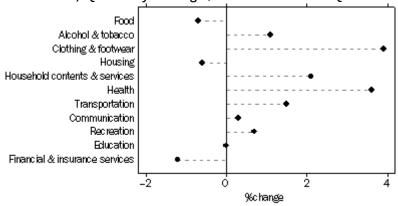
The all groups consumer price index (CPI) for Adelaide rose 0.6% during the June quarter 2009, while the weighted average of the eight capital cities increased by 0.5% during that quarter. Adelaide's CPI increased by 1.6% in the year ending June quarter 2009, compared with a 1.5% rise in the weighted average of the eight capital cities.

CONSUMER PRICE INDEX - ALL GROUPS, Quarterly change



Adelaide's largest percentage increases in prices from the previous quarter were in the areas of Clothing and footwear (3.9%), Health (3.6%) and Household contents and services (2.1%). The largest decreases in prices from the previous quarter were for Financial and insurance services (-1.2%) and Food (-0.7%).

CPI GROUPS, Quarterly change, Adelaide - June Quarter 2009

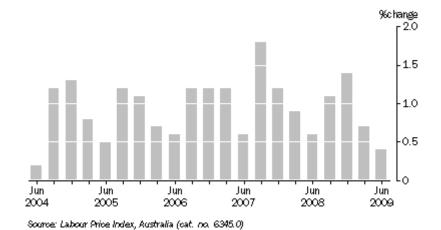


Source: Consumer Price Index, Australia (cat. no. 6401.0)

WAGE PRICE INDEX

The wage price index for all employee jobs in South Australia increased by 0.4% (in original terms) between the March and June quarters 2009. This was less than the national increase of 0.6% over the same period.

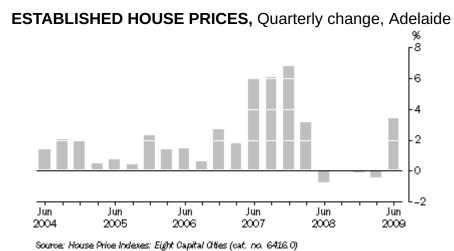
WAGE PRICE INDEX QUARTERLY CHANGES, Total hourly rates of pay excluding bonuses, Original, South Australia



HOUSE PRICE INDEX

Preliminary estimates show that the price index for established houses for Adelaide (in original terms) increased 3.4% in the June quarter 2009; the first increase since the March quarter 2008. Price rises were recorded in all other capital cities between the March and June quarters 2009 resulting in an increase in the price index for the weighted average of the eight capital cities of 4.2% over this period.

Over the year to the June quarter 2009, the preliminary estimates show the price index for established houses for Adelaide rose 2.7%, while the weighted average of the eight capital cities decreased 1.4%.



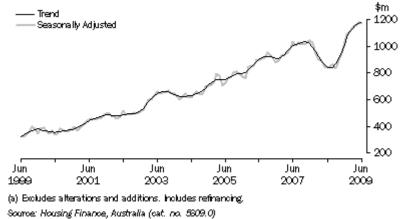
Housing Finance



HOUSING FINANCE COMMITMENTS

In trend terms, the total value of housing finance commitments (owner occupation) in South Australia in June 2009 was \$1,185m, an increase of 0.8% from \$1,176m in May 2009. Nationally, the value of housing finance commitments for owner occupation grew by 1.8% from \$17,127m in May 2009 to \$17,434m in June 2009.





In June 2009, the average home loan size for owner occupied dwellings in South Australia was \$212,300, which was significantly lower than the average home loan size for Australia (\$264,300).

In June 2009, the average loan size for first home buyers in South Australia was \$232,400, which was 12.4% higher than the average loan size for non-first home buyers (\$206,700). Since June 2008, the average loan size for first home buyers has increased 11.0% while the average loan size for non-first home buyers has increased 8.6%.

HOUSING FINANCE COMMITMENTS (OWNER OCCUPATION) (a), Average loan size, Original, South Australia



For information on the house price index, please refer to the 'Price Indexes' topic.

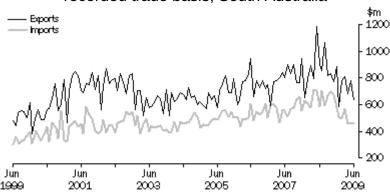
International Merchandise Trade

EXPORTS AND IMPORTS

South Australia's value of exports on a recorded trade basis in June 2009 was \$634m. This represents a decrease of 18.8% from May 2009 (\$780m). The value of Australian merchandise exports for June 2009 was \$15,412m, a 14.9% decrease from the previous year (\$18,101m in June 2008).

The value of South Australian merchandise imports increased 0.7% to \$458m in June 2009. This is 21.9% lower than the value of imports recorded in June 2008. The value of Australian merchandise imports for June 2009 was \$15,671m, a 13.6% decrease from June 2008 (\$18,135m).

VALUE OF INTERNATIONAL MERCHANDISE EXPORTS AND IMPORTS (a), on a recorded trade basis, South Australia



(a) Exports where the final stage of production or manufacture occurs in South Australia. Source: International Trade in Goods and Services, Australia (cat. no. 5368.0)

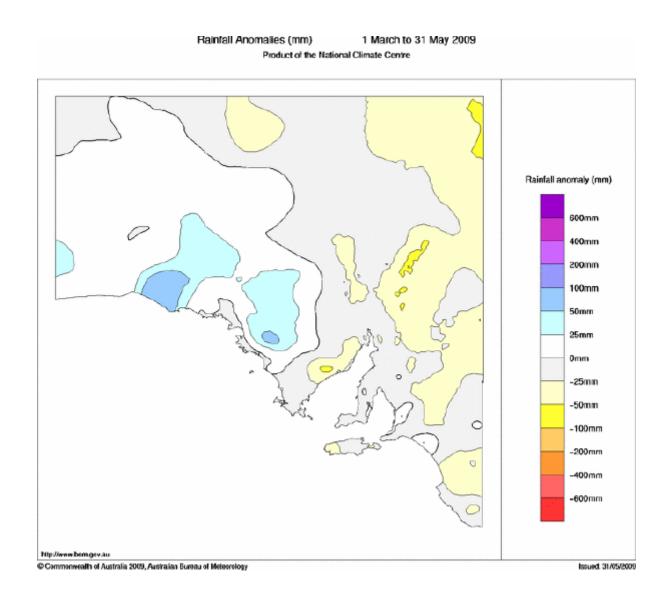
Water



RAINFALL

South Australian rainfall totals were generally slightly below average across much of South Australia this autumn, typically 60 to 80% of average, apart from the Mount Lofty Ranges and adjacent areas, the far western agricultural areas, and the south-western pastoral areas, which saw rainfall above average. Areas of above average totals in the west were quite patchy due to the rainfall coming from the combination of several events that were not widespread, but were up to twice the average in some locations.

Rainfall Anomalies.

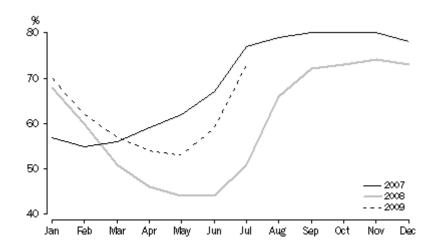


Source: 3-monthly rainfall anomalies for South Australia, Australian Bureau of Meteorology

RESERVOIR LEVELS

According to the Bureau of Meteorology July 2009 was South Australia's wettest July since 1996, with rainfall across catchment areas being well above average. As a result the total water storage in Adelaide's reservoirs increased substantially to be 73% of capacity by the end of the month. This compared to 59% at the end of June 2009 and 51% at the end of July 2008. Reservoir levels for the first seven months of 2009 have been higher than for the corresponding periods in 2008.

TOTAL RESERVOIR STORAGE, As a percentage of capacity, Adelaide



Source: SA Water daily reservoir levels

About this Release

SA Stats provides an overview of the South Australian population and economy. The publication is updated on a monthly basis, with most releases also featuring an article that provides a South Australian focus on economic, social and environmental issues.

Explanatory Notes are not included in SA Stats in the form found in other Australian Bureau of Statistics (ABS) publications. Readers are directed to the Explanatory Notes contained in related ABS publications.

Heating and Cooling (Feature Article)

FEATURE ARTICLE: HEATING AND COOLING

INTRODUCTION

Heating and cooling can account for more than 40% of a household's annual energy consumption. How people choose to heat and cool their homes therefore has great impact on their energy use and greenhouse gas emissions. The energy usage of household appliances may vary for a variety of reasons. Some of these factors include the type of appliance, the frequency of use, the period of use, and whether the appliance is new or old. The numbers and types of heaters and coolers in dwellings can also give some indication of the amount of energy used in heating and cooling. Examining the change over time in heating and cooling systems may indicate whether households are moving towards more environmentally friendly methods.

This article looks at household heating and cooling, examining the numbers and types of heaters and coolers used in South Australian households. It also examines reasons why households across Australia have chosen particular types of heaters for their dwelling. This article uses data from **Environmental Issues: Energy Use and Conservation, March 2008** (cat.no. 4602.0.55.001), covering the period between June 1994 and March 2008.

HEATERS

In March 2008, 91% of South Australian dwellings had a heater, compared with 77% of dwellings across Australia. Of these dwellings in both South Australia and Australia, around two-thirds had only one heater in use and nearly one quarter had two.

Between 1999 and 2008, the proportion of South Australian households with more than one heater declined from 38% to 31%. This decrease may have been partly due to an increasing tendency for households to install heating systems, such as ducted systems, that can heat the whole dwelling, reducing the need for separate heaters.

DWELLINGS WITH HEATER(a), Number of units in use, South Australia

(a) Data for 2008 and 2005 excludes households with at least one heater but without any in use.

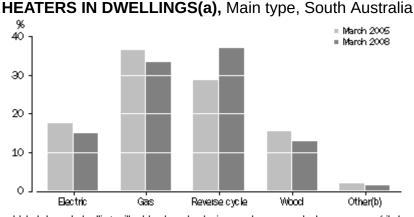
2005

2002

TYPES OF HEATERS

Mar

Reverse cycle and gas heating generate considerably less greenhouse gas emissions than electric heaters (DEWHA 2008). Between March 2005 and March 2008, the proportion of households using a reverse cycle unit as their main heater increased from 28% to 37%, but gas experienced a small decrease from 36% to 33%. There were decreases in the proportions of households using electric or wood heaters.



(a) Includes only dwellings with at least one heater in use, where respondents were aware of its typ
 (b) Includes oil heaters

In the Energy Use and Conservation survey, householders who were responsible for installing the main heater in their dwelling were asked the main reason for their choice. In a separate question relating to household appliances, households that had replaced or bought an appliance in the past 12 months were asked the factors they considered before making their purchase. These data are only available for Australia as a whole, but may give an indication of the considerations for South Australian households in choosing heaters.

In 2008, comfort and convenience was clearly the main reason why Australian households selected their main type of heating. Though comfort and convenience was nominated as the main reason a particular heater was chosen by 39% of households across Australia (for all heater types), 47% of households with reverse cycle heating stated this reason. Using less energy was more likely to be a reason considered by households with gas heaters (17% compared to 12% for all heater types), while those with wood heaters were more likely to state saving on energy bills as their reason (24% compared to 14% for all heater types).

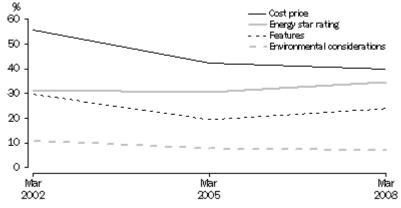
MAIN REASON FOR CHOICE OF MAIN HEATER, Australia - March 2008

	Electric %	Gas %	Reverse Cycle %	Wood %	All types(a) %
Comfort/convenience	44.7	31.6	46.8	29.1	38.7
Cost price	24.7	21.1	18.0	17.0	20.5
Save on energy bills	np	20.1	8.5	23.6	14.0
Use less energy	5.2	16.9	13.5	10.5	12.4
Other	np	10.4	13.2	19.8	14.5

np not available for publication but included in totals where applicable, unless otherwise indicated (a) Includes oil heaters

In March 2002, 56% of households across Australia stated that they considered cost price when replacing or purchasing any heating appliance in the previous 12 months. The energy star rating was the next most common factor, considered by 32% of households. Between March 2002 and March 2008 the proportion of households across Australia that considered cost price when replacing or buying a heater declined from 56% to 40%, in contrast to a small increase from 32% to 35% in the proportion of households over the same period who considered the energy star rating. In March 2008 only 7% of households across Australia thought that environmental considerations were an important factor to consider when replacing or purchasing a heater, down from 11% in March 2002.

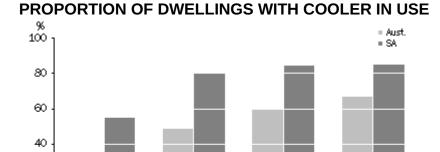
REPLACING/BUYING HEATERS (a), Selected factors considered, Australia



(a) Asked of households that bought or replaced at least one appliance in the last 12 months prior

COOLERS

Between March 1999 and March 2008 the proportion of South Australian dwellings with a cooler (an air conditioner or evaporative cooler) in use increased from 54% to 85%, while the proportion of dwellings across Australia with a cooler in use increased from 35% to 66%.



2002

2005

Mar

2008

TYPES OF COOLERS

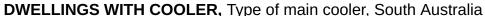
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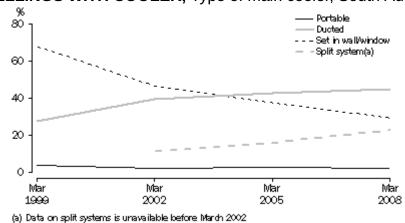
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1999

There has been a decrease in the proportion of dwellings with their main cooler set in a wall or window in South Australia, in contrast to an increase in both ducted and split system coolers. The proportion of South Australian dwellings with units set in a wall or window decreased from 68% to 30% between March 1999 and March 2008. Conversely the percentage of South Australian dwellings with ducted systems rose from 28% to 45% over the same period. The proportion of dwellings with split system units has more than doubled from March 2002 to March 2008, rising from 11% to 23%. The proportion of South Australian dwellings with a portable cooling unit as the main source of cooling remained below 5% from March 1999 to March 2008.

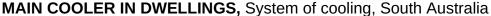


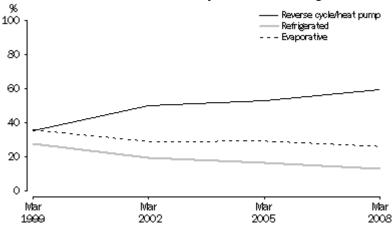


SYSTEMS OF COOLING

The proportion of South Australian households with an evaporative system as their main

cooler declined from 36% in March 1999 to 26% in March 2008. Conversely reverse cycle or heat pump systems were the main coolers in 35% of dwellings in March 1999 and this increased to 59% in March 2008. In conditions of low humidity evaporative cooling systems can use one-quarter of the electricity required by refrigerated systems (ABS 2006).





CONCLUSION

Data from **Environmental Issues: Energy Use and Conservation** gives some insight into the way South Australians heat their homes. Since March 2005, households have tended towards gas and reverse-cycle systems for their main heater, and away from electric and wood heating. Data for Australia as a whole shows that environmental considerations rank low among factors considered in heating choices, with comfort and convenience the most commonly stated factor considered.

The proportion of South Australian households with a cooler in use has increased since June 1994, which suggests more energy is being used to cool homes. Over this time, the popularity of reverse cycle coolers has increased, while the proportion of refrigerated coolers has declined. This period has also seen an increase in the proportion of households with split system and ducted coolers and a move away from portable coolers or those set in a wall or window.

LIST OF REFERENCES

ABS (Australian Bureau of Statistics) 2006, <u>Australian Social Trends, 2006</u>, (cat. no. 4102.0), ABS, Canberra

ABS 2008, <u>Environmental Issues: Energy Use and Conservation, March 2008</u>, (cat.no. 4602.0.55.001), ABS, Canberra

DEWHA (Department of the Environment Water Heritage and the Arts) 2008, **Global Warming Cool It - Home Heating and Cooling**, viewed 2 April 2009 http://www.environment.gov.au/settlements/gwci/heat.html

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